REMARKS / DISCUSSION OF ISSUES

Claims 1-20 are pending in the application; claims 14-20 are newly added.

The applicants thank the Examiner for acknowledging the claim for priority and receipt of certified copies of all the priority documents, and for determining that the drawings are acceptable.

The applicants thank the Examiner for providing information about recommended section headings in the specification. However, the applicants respectfully decline to add section headings, as they are not required in accordance with MPEP 608.01(a).

New dependent claims 14-20 are added to at least partially restore the original range of claims that existed before multiple dependencies were removed in the preliminary amendment. No new matter is added.

The Office action rejects claim 5 under 35 U.S.C. 112, second paragraph. Claim 5 is amended herein, and the Examiner's reconsideration is requested in view of this amendment.

The Office action rejects claims 1-4, 6, and 9-13 under 35 U.S.C. 103(a) over Kever et al. (USPA 2003/0145239, hereinafter Kever) and Korst et al. (USP 6,061,732, hereinafter Korst). The applicants respectfully traverse this rejection.

MPEP 2142 states:

> "To establish a *prima facie* case of obviousness ... the prior art reference (or references when combined) ***must teach or suggest all the claim limitations***... If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness."

The Office action fails to identify where Kever or Korst teaches or suggests determining an optimum buffer size for which the power consumption of a subsystem of a mass storage device and a buffer memory is a minimum for a given streaming bit-rate to/from said buffer memory, as specifically claimed in claim 1, upon which claims 2-8 and 14-20 depend.

The Office action fails to identify where Kever or Korst teaches a processing unit that adaptively activates or deactivates areas of said buffer memory in such a manner that total power consumption of a subsystem comprising a storage device

and a buffer memory is minimized for a given streaming rate to/from said buffer memory, as specifically claimed in claim 9, upon which claims 10-13 depend.

As taught by the applicants, and illustrated in the example plot of FIG. 1, the total power consumption is dependent upon both the power consumed by the mass storage device (HDD) and the buffer memory (SDRAM).

Neither Kever nor Korst teaches or suggests controlling a buffer size to minimize the power consumption of a subsystem of a mass storage device and buffer memory, and the Office action fails to identify where either Kever or Korst provides this teaching.

The Office action references paragraphs [0009] and [0010] of Kever for teaching turning sections of memory on or off; at this cited text, Kever teaches:

> [0009] When a software application is compiled, a signal may be sent from the software application to the PMU to indicate how much L3 cache memory the application may need. The PMU then turns on the appropriate amount of cache memory needed for that application.
> [0010] While a software application is running, the application may also send a signal to the PMU to indicate how much L3 cache memory the application needs at that time.

As is clearly evident, the cited text of Kever fails to address minimizing the power consumption of a subsystem of a mass storage device and buffer memory. Kever merely teaches controlling the amount of active memory based on the amount of memory needed by an application, which will not necessarily minimize the amount of energy used by the memory, nor minimize the amount of energy used by a storage device, and specifically will not necessarily minimize the amount of energy consumed by the combination of the memory and storage device.

Because the Office action fails to identify where either Kever or Korst teaches or suggests each of the elements of the applicants' independent claims 1 and 9, the applicants respectfully maintain that the rejection of claims 1-4, 6, and 9-13 under 35 U.S.C. 103(a) over Kever and Korst is unfounded, per MPEP 2142, and should be withdrawn.

The Office action rejects:

claim 5 under 35 U.S.C. 103(a) over Kever, Korst, and Kling et al. (USPA 2001/0003207, hereinafter Kling);

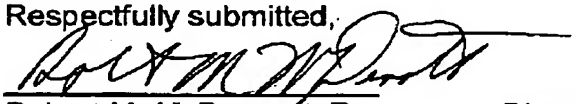
claim 7 under 35 U.S.C. 103(a) over Kever, Korst, and Yoshida (USP 5,928,365); and

claim 8 under 35 U.S.C. 103(a) over Kever, Korst, and Falcon Jr. et al. (USP 5,712,976, hereinafter Falcon). The applicants respectfully traverse these rejections.

Each of claims 5, 7, and 8 are dependent upon claim 1, and in each of these rejections, the Office action relies upon the combination of Kever and Korst for teaching the elements of claim 1. As noted above, the combination of Kever and Korst fails to teach or suggest each of the elements of claim 1. Accordingly, the applicants respectfully maintain that the rejections of claims 5, 7, and 8 under 35 U.S.C. 103(a) that rely upon Kever and Korst for teaching the elements of claim 1 are unfounded, per MPEP 2142, and should be withdrawn.

In view of the foregoing, the applicants respectfully request that the Examiner withdraw the rejections of record, allow all the pending claims, and find the application to be in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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